DOCUMENT RESUME

ED 418 615 HE 030 877

AUTHOR	Belcheir, Marcia J.
TITLE	Freshmen Retention at Boise State University.
INSTITUTION	Boise State Univ., ID. Office of Institutional Assessment.
REPORT NO	RR-97-05
PUB DATE	1997-08-00
NOTE	33p.
PUB TYPE	Reports - Research (143) -- Tests/Questionnaires (160)
EDRS PRICE	MF01/PC02 Plus Postage.
DESCRIPTORS	Admission (School); *College Freshmen; Enrollment Influences; Enrollment Trends; *Grade Point Average; Higher Education; Minority Groups; *Predictor Variables; Questionnaires; *School Holding Power; State Universities; Student Surveys; *Teacher Student Relationship
IDENTIFIERS	*Boise State University ID

ABSTRACT

This study sought to predict first-term grade point average (GPA), spring reenrollment, and enrollment one year later for 235 new freshmen students at Boise State University (BSU) in Idaho. Data included a wide variety of academic and personal information gathered from two surveys at the beginning and the end of fall term of 1995. The study found that reenrollment next semester and one year later was best predicted by first-term GPA, and that first-term GPA was best predicted by the BSU admissions index score. The second most significant predictor was the number of conversations held with faculty, with more conversations related to higher GPAs. Contrary to national findings, minority group students were more likely to be enrolled one year later than their nonminority counterparts. A number of variables which initially showed statistical significance, such as age and admissions status, were no longer significant when other variables were added to the analysis. A number of variables that were expected to show significant effects did not, such as employment, having responsibility for children or parents, living on campus, and gender. Three appendixes provide copies of the survey questionnaires, factors related to academic success, and coding responses. (MDM)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

ED 418 615

Freshmen Retention
at
Boise State University

Research Report 97-05

by:
Marcia J. Belcheir
Coordinator
Institutional Assessment

BEST COPY AVAILABLE

Boise State University
August 1997

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)
✓ This document has been reproduced as received from the person or organization originating it.
☐ Minor changes have been made to improve reproduction quality.
• Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

PERMISSION TO REPRODUCE AND DISSEMINATE THIS MATERIAL HAS BEEN GRANTED BY
Marcia J. Belcheir
TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

HE030 807

Abstract
Freshmen Retention at BSU

This study sought to predict first-term GPA, spring re-enrollment, and enrollment one year later for 235 freshmen new to BSU in the Fall of 1995. Data included a wide variety of information gathered from two surveys at the beginning and end of the semester as well as the typical student information. Highlights of findings include:

- Re-enrolling next semester and one year later was best predicted by first-term GPA.

- First-term GPA was best predicted by admissions index score. The second most important predictor was the number of conversations held with faculty, with more conversations related to higher GPAs.

- Students who reported more occasions of feeling lost and alone on campus had lower GPAs, while enrollment in the Cluster program was related to higher GPAs.

- Students who used more services were more likely to be enrolled one year later.

- Contrary to national findings, minority group members were more likely to be enrolled one year later than their non-minority counterparts.

- Many variables which showed initial statistical significance were no longer significant when the effects of other variables were added to the analysis. Examples include age, admissions status, financial aid grants and scholarships, and general perceptions of the University.

- A number of variables that were expected to show significant effects did not. These included working outside the home, having responsibility for children or parents, living on campus, and gender.

Findings indicate that BSU could probably improve early persistence of freshmen by first working

to improve early academic success. This means ensuring that students are ready for college (as evidenced by admissions index scores) or providing the means to get them prepared after they get here. Students and faculty also should be strongly encouraged to talk more to one another since that also strongly relates to first-term GPA. Continuing the cluster program and/or other efforts to help students feel less lost and alone on campus would also probably help as would encouraging the use of more services on campus.

Freshmen Retention at Boise State University

Much has been written on the subject of persistence and degree-attainment of college students. Indeed, Pascarella and Terenzini (1991, p. 387) found that "the volume of literature directly or indirectly addressing this area of inquiry during the last twenty years is extensive to the point of being unmanageable." Researchers are now well aware of the need to look at the decision to leave college as one that includes the variety of characteristics that students bring with them to college as well as the social and academic integration they experience at the institution (see Tinto, 1987 for fuller development of his classic model).

Any attempt to summarize these studies should begin by noting that most of these studies have found that the single best predictor of persistence and attainment of a Bachelor's degree is grades. Entering academic ability, especially as measured by high school grade point average (GPA), also has been important through predicting grades and therefore indirectly predicting persistence. The amount of student-faculty non-classroom contact, and particularly frequency of interactions with faculty to discuss intellectual matters, also has been found to positively relate to freshman-to-sophomore persistence. Peer relationships and extracurricular involvement also have been important, though it is less clear that the relationship holds when other factors are taken into account. Living on or near campus facilitated integration into the campus social network, and this in turn affects persistence, an effect that remained even after controlling for a variety of pre-college characteristics. Typically, however, this effect has not been found for commuter institutions, only residential colleges.

Orientation programs also have been found to positively relate to persistence, with first-semester seminars the most effective. Much of the effect disappeared, however, when other factors were controlled. The effects of advising, financial aid, and academic major have all resulted in mixed results, perhaps due to the complexity of the relationships. However, off-campus employment consistently has been shown to have a negative effect on persistence, even when controls were made for other factors. Part-time employment on campus, however, appeared beneficial.

Most of these studies, however, have been conducted on traditional-aged populations at residential institutions, which calls these findings into question for institutions that do not fit that profile. Findings may be different for BSU, for example, where about 75% are under the age of 20, 60% are enrolled full-time their first semester, and about 35% are living on campus their first year. Thus, we decided to undertake our own study of what factors would predict grade point averages (GPAs) and continued enrollment at the institution. Armed with this information, we could then make better decisions about which steps to take to improve retention at the University.

Methodology

Data Gathering

There are many things we know about our students at the time of enrollment: age, gender, ethnicity, residence, proposed major, financial aid, and academic preparation as evidenced by high school grade point average and ACT or SAT scores. There are also many things we do *not* know about our students, things that research has indicated would make a difference. How ready are they for college? Do they have the family support and personal motivation to continue when things get rough? What are their other time commitments? Do they have jobs or children? How do they perceive their first-semester experience?

To fill in the blanks in these other areas not traditionally captured as part of the admissions process, questionnaires were given to a subset of students enrolled in a freshman orientation course (GE197) and/or a general psychology course (P101) at both the beginning and the end of the Fall 1995 semester (see Appendix A for the two surveys). The final set of entry variables included: gender, age, ethnicity, intention to complete a degree at Boise State University, amount of time they estimated they needed to meet their educational goals, number of hours employed outside the home, responsibilities for children or aging parents, on-campus living arrangements, admissions index scores as a combination of standardized test scores and high school GPA, whether they had decided on a major, local residence, and financial aid given in grants, scholarships, and loans. In addition, responses to 18 items that students rated as helping or hindering their success were factor analyzed, and factor scores were obtained on three factors

named academic readiness, resource management, and psychological readiness (see Appendix B for further information on the items which loaded on each factor).

First semester experience variables were mainly gathered through the end-of-the-term survey. Variables included: perceived impact on academic and career development, general perceptions of the University, number of services used, satisfaction with services, number of conversations with faculty, number of conversations with other students, number of times they worked with other students on projects outside of class, number of times they met as a member of a study group, the number of times they felt lost or alone on campus, the number of times they experienced rudeness on campus, and number of credits taken their first semester. Other variables included whether the students had enrolled in either a cluster program (where the same group of students took their courses together) or in an orientation or study skills course. In addition, students were asked an open-ended question at the end of the semester about what they had learned their first semester. Responses were coded on three dimensions—intrinsic/extrinsic, personal/academic, and positive/negative—and included in the analysis (see Appendix C for examples of responses for each dimension). First-term GPA served as the final first-semester-experience variable as well as an outcome variable.

Statistical Analysis

The analysis first sought to discover which variables were related to the outcomes of interest: first-term GPA, re-enrolling in the spring, and re-enrolling next fall. Analysis of Variance (ANOVA), t-tests, chi-square and correlation were used to study the simple relationships of each variable to the outcomes. Analyses which showed probability levels of .10 or less were considered statistically significant.

It has often been found, however, that variables that appear statistically significant when considered by themselves will lose significance when the effects of other measures are also accounted for. Or, for example, a study may find no effect for a study skills course on GPA when considered alone, but to find a positive effect after entering academic skills are included in the

analysis since those enrolled in the course had lower entering academic skills which also related to GPA.

In this study, regression analysis was used to control and study the effects of multiple variables on the three outcome variables: first-semester GPA, re-enrollment for a second (spring) semester, and re-enrollment for a third (fall) semester. This procedure also reduced the number of variables included to the few which were considered most important. In essence, what this process did was first look for the variable with the strongest relationship to the outcome and then add the next variable after all the variability from the first (or succeeding variables) had been accounted for until there are no more variables which met the statistical criterion.

First-term GPA was predicted using the stepwise regression approach with a criterion to enter and stay in the analysis of .15. To predict re-enrollment, logistic regression analysis was used. Using the recommendations of Hosmer and Lemeshow (1989), univariate analyses were first conducted using either a chi-square or t-test statistic that related each variable to re-enrollment. Those which had a probability level of .25 or less were kept and submitted to a logistic regression using the stepwise procedure. Again, the probability level to enter or stay in the stepwise regression was .15. Variables which were selected in this process were then included in the final regression equation; probabilities of less than .10 were considered statistically significant.

Findings

The 235 students included in the study were fairly reflective of the freshman class as a whole. About 60% were female and 13% were members of a minority group. Most (75%) planned to get a degree at Boise State University, while 14% were undecided about their major. About 40% lived in residence halls, and 45% had addresses indicating they lived locally before coming to the University. About 60% were working at least part-time, and over half received financial aid. One in eight (12%) cared for children or aging parents.

In general, this group was somewhat more successful than the freshman class as a whole. About

68% had first term GPAs above 2.0 compared to 65% for the entire class. Persistence rates were also higher (91% vs. 83% for spring, 65.5% vs. 54% for the following fall). Prior research (Belcheir, 1997) had indicated that younger and better prepared students tended to enroll in the Freshman Orientation course where the surveys were given and that those enrolled in these courses were more likely to persist.

Findings Regarding First-term GPA

In studying the simple relationship between each variable and first-term GPA, a number of variables showed significant relationships at the $p<.10$ level. Entry variables which were significant were admissions index scores, regular admissions status, receipt of a financial aid scholarship, and local residence. First-semester variables which were significant were enrollment in the Cluster program, general perceptions of BSU, number of conversations with faculty, number of conversations with other students, number of times they felt lost and alone on campus, and number of credits attempted. All of these variables had a positive relationship to GPA with the exception of the number of times the student felt lost and alone. In addition, student responses to the open-ended question about what they had learned during the semester were positively related to GPA in two areas. Those with responses which had a personal theme and/or a positive tone had higher GPAs.

As a next step, all variables were included in a stepwise regression. Local results mirrored national findings, with admissions index scores clearly the best single predictor of first-term GPA. The number of times students indicated they had held conversations with faculty members was second in importance, with students with higher GPAs holding more conversations. Other variables which positively related to GPA were local residence, perceived impact on development, positive comments about learning, participating in the cluster program, and intention to get a degree at BSU. A negative relationship was found between GPA and number of times the student felt lost and alone at the University. The findings are summarized in Table 1 below. Taken as a whole, they indicate that students who arrived with good academic skills, became academically engaged their first semester, and had positive perceptions of their first semester also had higher

grade point averages. It should be noted, however, that the set of variables accounted for only 38% of the variability in GPA.

Table 1
Prediction of First Term Grade Point Average
Using Stepwise Regression

Step	Variable	Partial R^2	Model R^2	F-Ratio	Prob>F
1	Admissions Index	.2057	.2057	51.78	0.0001
2	Number of conversations with faculty	.0529	.2585	14.19	0.0002
3	Permanent local resident	.0373	.2959	10.50	0.0014
4	Impact on development first semester	.0282	.3241	8.22	0.0046
5	Positive comments re. learning	.0154	.3395	4.57	0.0337
6	Number of times felt lost or alone on campus	.0189	.3584	5.75	0.0174
7	Part of cluster program	.0120	.3704	3.69	0.0563
8	*Seeking a degree at BSU*	*.0075*	*.3779*	*2.33*	*0.1289*

Predicting Re-enrollment the Next Term

There were 13 variables which had a statistically significant relationship ($p<.10$) to re-enrolling spring term. Entry-level variables included: seeking a degree at the University, living on-campus, age, having a permanent local address, estimated time to degree, receiving a financial aid grant, and number of credits attempted first term. The other significant entry variable was the student's self-assessed academic readiness; however, those who assessed themselves as more academically ready were less likely to return. First-semester variables that were significant were contact with faculty, positive comments about what was learned first semester, first term GPA, general perceptions of BSU, and satisfaction with services. Students were more likely to return who were degree-seekers who estimated a longer time to their educational goal, took more credits, were older, and received a grant. They were NOT local residents, perhaps because local residents had the flexibility to attend sporadically because they did not need to move to attend school. Those who re-enrolled related more favorable perceptions of the University and more faculty conversations. However, re-enrollees tended to be less satisfied with the services they had used.

The stepwise logistic regression then selected seven of 16 variables for the final model: first term GPA, estimated time to degree, credits attempted first semester, factor scores on academic readiness and resource management, general perceptions of BSU, and receiving a grant. Only three variables, however, had probabilities of less than .10 when included in the final logistic regression.

As expected, first-term grade point average (GPA) was the best predictor of re-enrollment for the following term. Other variables which were associated with increased odds of returning were factor scores on academic readiness and numbers of credits attempted . While more credits increased the odds of returning, the opposite was true of academic readiness factor scores where those with higher scores were again less likely to return. See Table 2 for further details.

Table 2
Logistic Regression Predicting
Next Semester Re-enrollment

Variable	Wald χ^2	$P>\chi^2$
First term GPA	6.61	0.01
Academic readiness (factor 1)	3.41	0.06
Credits attempted first term	3.34	0.07
Resource management (factor 2)	*2.34*	*0.13*
General perceptions of BSU	*2.24*	*0.13*
Received grant	*2.20*	*0.14*
Time to reach educational goal	*0.72*	*0.40*

Predicting Re-enrollment One Year Later

Entry variables which directly related to returning in the fall included: whether they were seeking a degree from the University, minority group membership, estimated time needed to reach educational goal, amount of time working outside the home, financial aid grant recipient, scores on the psychological readiness factor, admissions index scores, and age. Those who returned were more likely to have higher admissions index scores, estimate a longer time to their educational goal, receive a grant, and be a member of a minority group. Those rating themselves more psychologically ready for college were less likely to return. First-semester variables that

were significant when considered alone were: positive comments about their first-term learning experiences, general perceptions of BSU, number of services used, and first-term GPA.

The stepwise logistic regression reduced a set of 16 variables to eight; seven remained statistically significant at the .10 level when included in the final regression equation. Results are shown in Table 3.

Table 3
Logistic Regression Predicting
Next Fall Re-enrollment

Variable	Wald χ^2	$P>\chi^2$
First term GPA	19.91	0.0001
Minority group member	4.97	0.0258
Satisfaction with services	4.53	0.0334
Number of times met as member of study group	4.35	0.0371
Number of services used	4.33	0.0375
Admissions Index	3.37	0.0664
Psychological readiness (factor 3)	2.98	0.0841
Time needed to reach educational goal	*1.98*	*0.1592*

First-term grade point average was again by far the best predictor of who would return the following fall term. Other variables which increased the odds of returning one year later were using more services, minority group membership, greater satisfaction with services used, and higher admissions index scores. Variables which were related to decreased odds of enrolling were higher ratings of psychological readiness for college and more participation in study groups, two findings which were contrary to most published research. Note, however, that participation in study groups was not a variable that was considered significant by itself (at least at the $p<.10$ level); it is likely therefore that this variable was a proxy for several other variables—perhaps living on-campus and age since those who are older are also more likely to live off-campus and less likely to participate in study groups but still continue to enroll.

Summary and Discussion of Findings

Results of this study provided confirmation of the general wisdom in some areas and rather

startling findings in others (see Table 5 for a summary). On the confirmatory side, first term GPA again was the most important predictor of returning. Using Tinto's (1987) traditional model that casts persistence decisions into a combination of effects of academic integration (e.g., academic performance) and social integration (e.g., participation in campus life), this finding would indicate that academic integration was more important for this group of students. Though findings remain mixed, some research (e.g., Walleri & Peglow-Hoch, 1988) has indicated that for non-residential institutions, academic integration is more important in predicting persistence. Because of the nature of the student body, this study seems to confirm that finding.

Academic readiness as measured by a combination of high school grade point average and test scores was the best predictor of first term GPAs. Measures of social integration that were important included conversations with faculty, participation in a program designed to facilitate entry to campus, and feeling lost and alone on campus. Students who were more satisfied with their first semester experiences (as measured by perceived impact on academic development and positive comments about what they learned their first semester) were also more likely to have higher GPAs. Though one could argue that those who were doing well academically were more satisfied as a result, Pike (1991) concluded that satisfaction led to higher grades rather than vice versa. Two characteristics of students that were relevant to the analysis were intention to seek a degree at Boise State University and local residence. The relationship of degree-seeking and GPA could readily be interpreted as evidence of goal commitment. The local residence finding was somewhat confusing. Pascarella and Terenzini (1991) concluded from their review of the research that residence had little effect on academic achievement but was an essential part of social integration and therefore persistence.

There were differences in what variables were predictive of returning the next term versus returning the following fall. While both semesters found GPA to be a significant predictor, there were no other overlaps. In the spring term, academic readiness ratings and number of credits attempted first semester were significant predictors. For the fall term, service use and satisfaction,

Table 5
Summary of Significant Findings for First Term GPA, Spring Return, and Fall Return
When Each Variable is Considered Alone and After Accounting for the Effects of Other Variables

Variable Description	GPA Alone	GPA After Including Other Variables	Spring Return Alone	Spring Return After Including Other Variables	Fall Return Alone	Fall Return After Including Other Variables
Admissions Index	Higher index scores related to higher GPAs	Higher index scores related to higher GPAs			Those with higher scores more likely to return	Those with higher scores more likely to return
Seeking degree at BSU			Degree-seekers more likely to return			
Estimated time to educational goal			Those estimating longer times more likely to return		Those estimating longer times more likely to return	
Self-assessed academic readiness			Those rating themselves more ready were less likely to return	Those rating themselves more ready were less likely to return		
Self-assessed resource management skills						
Self-assessed psychological readiness					Those rating themselves more ready were less likely to return	Those rating themselves more ready were less likely to return
Working outside home						
Responsibility for children or parents						
Living on-campus						
Age			Older students more likely to return			
Regular Admissions Status	Regular admits had higher GPAs					

BEST COPY AVAILABLE

Table 5 - Cont'd.

Variable Description	GPA Alone	GPA After Including Other Variables	Spring Return Alone	Spring Return After Including Other Variables	Fall Return Alone	Fall Return After Including Other Variables
Minority group member					Minorities were more likely to return	Minorities were more likely to return
Received financial aid grant			Grant recipients were more likely to return		Grant recipients were more likely to return	
Received financial aid loan						
Received financial aid scholarship	Scholarship recipients had higher GPAs					
Undecided about Major (0001)						
Gender						
Local resident	Local residents had higher GPAs	Local residents had higher GPAs	Local residents were less likely to return			
Took Study Skills (e.g., GE108) or First Year Experience Seminar						
Participated in Cluster program	Program participants had higher GPAs	Program participants had higher GPAs				
Perceived impact BSU had on academic development		Perceptions of greater impact related to higher GPAs				
General perceptions of BSU	More favorable perceptions related to higher GPAs		Those with more favorable perceptions were more likely to return		Those with more favorable perceptions were more likely to return	

BEST COPY AVAILABLE

Table 5 - Cont'd.

Variable Description	GPA Alone	GPA After Including Other Variables	Spring Return Alone	Spring Return After Including Other Variables	Fall Return Alone	Fall Return After Including Other Variables
Number of services used					Those who used more services were more likely to return	Those who used more services were more likel to return
Satisfaction with services			Those with higher satisfaction ratings were less likely to return			
# of Conversations with faculty	More faculty conversations related to higher GPAs	More faculty conversations related to higher GPAs	Students who returned were likely to have met with faculty			
# of conversations with other students	More student conversations related to higher GPAs					
# of times worked with others outside of class on project						
# of times met as member of study group						Students who did NOT meet were more likely to return
# of times felt lost or alone on campus	Feeling lost & alone related to lower GPAs	Feeling lost & alone related to lower GPAs				
# of times experienced rudeness on campus						
Personal theme in telling most important thing they learned	Those with personal theme had higher GPAs					
Internal focus in telling most important thing they learned						

BEST COPY AVAILABLE

Table 5 - Cont'd.

Variable Description	GPA Alone	GPA After Including Other Variables	Spring Return Alone	Spring Return After Including Other Variables	Fall Return Alone	Fall Return After Including Other Variables
Positive tone in telling most important thing they learned	Those with positive tone had higher GPAs	Those with positive tone had higher GPAs	Those with positive tone more likely to return		Those with positive tone more likely to return	
# of credits attempted 1st term	More credits related to higher GPAs		Those taking more credits were more likely to return	Those taking more credits were more likely to return		
First term GPA	----------	----------	Those with higher GPAs were more likely to return	Those with higher GPAs were more likely to return	Those with higher GPAs were more likely to return	Those with higher GPAs were more likely to return

BEST COPY AVAILABLE

admissions index scores, study group participation, and psychological readiness factor scores were significant. These differences indicate that different factors were already contributing to the decision to stay or go by the second term. Studies of competing risks for withdrawing, graduating, or transferring over time have noted how risk factors have different influences at different times (e.g., Ronco, 1995) and indicate a need to continue to predict persistence over a longer time period.

Some of the spring and fall term findings were unexpected. It was unexpected to find, for example, that minority group members were more likely to return than their non-minority counterparts. Perhaps the fairly small minority student population and the support systems in place for most of them as members of a program (e.g., athletes, a program for children of migrant workers) provides a possible explanation. It was also unexpected to find that participation in study groups lowered the odds of returning. A closer inspection of the data showed that the significant effect was mainly due to the higher percentage of re-enrollees who indicated they had not participated in any study groups at all. Perhaps what we may be seeing, however, is more a reflection of the different kinds of students we are studying. As already indicated, some research indicates that for non-traditional students who are older and commute, social integration into the campus is unimportant. Perhaps it is this group of older students, motivated to complete an education, and squeezing in solitary study time among their other responsibilities, who are persisting and causing this effect. Further data exploration would be helpful in assessing this hypothesis.

The finding on the negative relationship between self-assessed psychological and academic readiness for college and persistence was also confusing, though in this case at least one other recent study reported a negative relationship between positive self-concept and grades for females (Ancis and Sedlacek, 1997). Perhaps unrealistic appraisals cause early problems for some students. Again, further research would be helpful.

The study was also useful for what was NOT significant, either when the variable was considered

by itself (the easiest way to be significant) or as part of a larger group in a regression equation. The following variables were unrelated in any way to either first-term GPA or re-enrollment: gender, working outside the home, having responsibility for children or aging parents, living on-campus, receiving a financial aid loan, being undecided about a major, working with others outside of class on projects, and experiencing rudeness on campus. Several of these variables have a long history of being related to persistence. For example, working is negatively related to persistence unless the employment is on-campus. Perhaps more information should have been gathered on where the employment took place or perhaps more students became employed after the beginning of the semester so data were incomplete. Financial aid information, too, may have been incomplete since we discovered after the fact that records on the mainframe did not always mirror actual status. Also, a recently conducted qualitative study showed that women in their 20s with children were at high risk for leaving the institution early, so it was surprising that little was found in this study that related to gender, age, or being a parent.

What does this mean for BSU? These findings indicate that BSU could probably improve early persistence of freshmen by:

- Working to ensure early academic success. This means that students should be ready for college (as evidenced by admissions index scores) or the institution should be prepared to get them to that point. Students and faculty also should be strongly encouraged to talk to one another since that also strongly relates to first-term GPA.
- Continuing the cluster program and/or other efforts to help students feel less lost and alone on campus.
- Encouraging the use of more services. The simple measure of the number of services used was related to returning one year later. Further analysis might help pinpoint which services were particularly valuable.

BSU has a highly diverse student body. This will not change, and there is little the University can do about it (should it even want to). What the University can do, however, is position itself to connect more closely with its students to better ensure a good start on college life and attend to those factors affecting persistence that are under its control.

Bibliography

Ancis, J. R., & Sedlacek, W. E. (1997). Predicting the academic achievement of female students using the SAT and non-cognitive variables. College and University, Vol. 72, No. 3, pp. 2-8.

Belcheir, M. J. (1997). An evaluation of the early impacts of the cluster program and first year experience seminar on new freshmen. Research report 97-02. Boise State University: Office of Institutional Assessment.

Hosmer, D.W., & Lemeshow, S. (1989). Applied logistic regression. New York: John Wiley and Sons.

Pascarella, E. T. & Terenzini, P. T. (1991). How college affects students. San Francisco: Jossey-Bass Publishers.

Pike, G. R. (1991). The effects of background, coursework, and involvement on students' grades and satisfaction. Research in Higher Education, vol 32, No. 1, pp 15-30.

Ronco, S. L. (1995). How enrollment ends: Analyzing the correlates of student graduation, transfer and dropout with a competing risks model. Paper presented at the Annual Forum of the Association for Institutional Research, Boston, MA. (ERIC Document Reproduction Service No. ED 387 007).

Tinto, V. (1987). Leaving college: Rethinking the causes and cures of student attrition. Chicago: University of Chicago Press.

Walleri, R. D., & Peglow-Hoch, M. (1988). Case studies of nontraditional high risk students. Paper presented at the Association for Institutional Research Annual Forum, May 1988. (ERIC Document Reproduction Service No. ED 298 861).

Appendix A

New Student Survey
Opening Fall, 1995

Directions: The following survey has been designed to gain information about you as a student and the factors in your life that may influence your continued enrollment at BSU. Please complete the survey and return it to your teacher. **Though we have asked for your name and ID number, no information about you as an individual will be reported to anyone.** We simply need the information to match it to an additional survey you will be asked to complete at the end of the term and to check college records to see if you re-enroll next term. If you have questions about this process, please talk to your instructor or contact Dr. Marcia Belcher, Coordinator of Institutional Assessment, at extension 385-1117.

Last Name: _____ First Name: _____

Student ID Number: _ _ _ - _ _ - _ _ _ _ Major: _____ Code: _____

1. Is this your first term at BSU?	
①	Yes
②	No

2. Have you attended another college or university besides BSU?	
①	Yes
②	No

3. Why did you enroll at BSU? (select one)	
①	To earn a degree at BSU
②	To take some courses before I transfer elsewhere
③	To begin my college career before I take some time off (e.g., for mission work)
⑤	To upgrade skills needed for my job
⑥	For personal enrichment

4. How much time do you anticipate you will need to meet the educational goal you selected in #3 ?	
①	less than one year
②	1 year
③	2-3 years
④	4 years
⑤	5-6 years
⑥	7 years or more

5. Your success in college can be influenced by many factors. For each of the factors listed below, please rate yourself on whether you believe it will be a help or a hindrance during your college career. Use the following scale:

1 = This may be a significant hindrance
2 = This may be a minor hindrance
3 = This may be of some help
4 = This may be of great help

____	a. academic background
____	b. level of motivation
____	c. ability to plan and manage my time
____	d. the amount of time I can devote to school
____	e. ability to memorize
____	f. reading skills
____	g. note-taking skills
____	h. approach to test-taking
____	i. ability to think and reason
____	j. writing skills
____	k. ability to relate to others
____	l. mental and physical health
____	m. financial resources
____	n. ability to find and make use of BSU's resources
____	o. the support of my family and friends to get an education
____	p. maturity/age
____	q. love of learning
____	r. knowing what I want from my education at BSU

PLEASE TURN OVER →

6. Are you working outside the home while going to school?	
①	No
②	Yes, less than 20 hours per week
③	Yes, more than half-time but less than full-time
④	Yes, I have a full-time job

7. Are you receiving any of the following types of financial aid?		
Yes	No	
(Y)	(N)	a. work study monies
(Y)	(N)	b. loans
(Y)	(N)	c. scholarships/grants
(Y)	(N)	d. other _____

8. Do you have responsibilities to care for children or parents?	
①	Yes
②	No
9. Where are you living?	
①	In residence hall on campus
②	With parents
③	In own home or apartment

10. What do you hope to obtain from your education at BSU?

End-of-Term New Student Survey
Fall, 1995

Directions: This survey has been designed to gain information about your experiences at BSU this term. Though we have asked for your social security number, no information about you as an individual will be reported to anyone. We simply need the information to match it to the survey you took at the beginning of the term and to check college records to see if you re-enroll next term. This information will be combined to produce a report on the entire group to help answer questions about how to better retain students. If you have questions about this process, please talk to your instructor or contact Marcia Belcher, Coordinator of Institutional Assessment, at 385-1117.

Social Security Number: __ __ __ - __ __ - __ __ __ __

Last Name _____ First Name _____

The following are a list of abilities or skills one might expect to develop while pursuing a post-secondary education. Please indicate the impact BSU has had on your development in each of these areas:

Major Impact ↓ Moderate Impact ↓ Minor Impact ↓ No Impact ↓

①	②	③	④	1. Making and exercising a lifelong commitment to learning.
①	②	③	④	2. Defining and solving problems.
①	②	③	④	3. Developing skills that employers need.
①	②	③	④	4. Learning about existing and emerging career options.
①	②	③	④	5. Getting along with people from various cultures, races, backgrounds, etc.
①	②	③	④	6. Recognizing and using effective oral communication skills.
①	②	③	④	7. Recognizing and using effective written communication skills.
①	②	③	④	8. Analyzing and drawing conclusions from various types of data.

Indicate how you feel about each of the following statements.

Strongly Agree ↓ Agree ↓ No Opinion ↓ Disagree ↓ Strongly Disagree ↓

①	②	③	④	⑤	9. BSU's environment is warm and friendly.
①	②	③	④	⑤	10. I am convinced I made the right decision in choosing BSU.
①	②	③	④	⑤	11. Faculty members are genuinely interested in the welfare of students.
①	②	③	④	⑤	12. Staff members have been helpful to me.
①	②	③	④	⑤	13. I generally experienced good teaching this semester.
①	②	③	④	⑤	14. I plan to re-enroll next semester.

BEST COPY AVAILABLE

(Please turn over) ➡

For each service listed, indicate whether you have used the service, and if you used the service, your level of satisfaction with that service.

	I Did Not Use This Service	**I used this service and was:** Very Satisfied	Satisfied	Neutral	Dissatisfied	Very Dissatisfied

①	②	③	④	⑤	⑥	15. Course registration processes.
①	②	③	④	⑤	⑥	16. Financial aid services.
①	②	③	④	⑤	⑥	17. Academic advising services.
①	②	③	④	⑤	⑥	18. Student employment services.
①	②	③	④	⑤	⑥	19. Residence halls and apartments.
①	②	③	④	⑤	⑥	20. Food services.
①	②	③	④	⑤	⑥	21. Student health services.
①	②	③	④	⑤	⑥	22. Day care services.
①	②	③	④	⑤	⑥	23. Honors Program.
①	②	③	④	⑤	⑥	24. Library facilities and services.
①	②	③	④	⑤	⑥	25. Counseling services.
①	②	③	④	⑤	⑥	26. University-sponsored tutorial services.
①	②	③	④	⑤	⑥	27. Cultural programs and activities.
①	②	③	④	⑤	⑥	28. College-sponsored social activities.
①	②	③	④	⑤	⑥	29. Recreational and intramural programs and services.
①	②	③	④	⑤	⑥	30. Campus newsletters/newspapers.

How frequently did you experience each of the following this semester:

Never	Once	2-3 times	4-6 times	7 or more times	

①	②	③	④	⑤	31. Held a conversation with a faculty member.
①	②	③	④	⑤	32. Held a conversation with another student.
①	②	③	④	⑤	33. Worked with other students outside of class on a project.
①	②	③	④	⑤	34. Met as a member of a study group.
①	②	③	④	⑤	35. Felt lost or alone on campus.
①	②	③	④	⑤	36. Experienced rudeness on campus.

37. What is the most important thing you learned this semester? _____

38. What should BSU do differently to help students continue to enroll at BSU? _____

Appendix B

Appendix B
Factors Related to Academic Success

Item	Academic Readiness	Resource Management	Psychological Readiness
Note-taking skills	.74		
Reading skills	.68		
Approach to test-taking	.66	.40	
Writing skills	.59		
Ability to memorize	.54		
Ability to think & reason	.52		
Ability to use BSU's resources	.40		
Academic background	.37		
Ability to plan & manage time		.72	
Amount to time to devote to school		.55	
Level of motivation		.50	
Financial resources		.41	
Knowing what I want from education		.37	
Mental & physical health			.59
Maturity/age			.58
Ability to relate to others			.56
Support from family & friends to get an education			.47
Love of learning			.40

Appendix C

APPENDIX C

Coding Responses
"What is the most important thing you learned this semester?"

			Example
P	I	+	(A) I can do it! (B) Being on your own you think a lot about yourself and what you are made of.
P	E	+	(A) How to deal with meeting new people and how to find information on my own. (B) I learned to prioritize my life, and to use that to help me plan.
P	I	-	(A) Being able to adjust to people who are hard-headed. (B) That I need to want to be here instead of coming here because I think I should.
P	E	-	(A) I learned that I cannot slack off, that is one thing I learned and also regret. (B) To make time, but it is sometimes hard to do when others need your services.
A	I	+	(A) How much I enjoy learning. (B) Learned how important it is to go to college.
A	E	+	(A) How to get things accomplished! (B) Relearning the process of learning.
A	I	-	(A) How happy I am when finals are over. (B) That as a student I am just a number, nothing more.
A	E	-	(A) That college requires a lot more time than high school and I'm going to have to work a lot harder. (B) To go to class!

P or A: Personal or Academic,
I or E: Internal or External,
+ or -: Positive or Negative

BEST COPY AVAILABLE